

SPEAKER TEST

Flexing Your Quads

QUAD ESL-2905 (£6000)

Quad has taken a fresh look at its ESL range of speakers and rebuilt a benchmark from the ground up. The result is the beefy ESL-2905, true to the spirit of the original series but with dynamics and bass to die for



It is with no small measure of pride that I am reviewing the latest incarnation of the phenomenal Quad ESL-63. Y'see, I had a teensy-weensy, but possibly pivotal role in its development. If that taints me with a conflict of interest, so be it. But I'm telling you upfront. As there was no exchange of funds, I sleep clear of conscience.

Some time ago, Quad's Dave Patching asked me in detail about the astounding performance Alastair Robertson-Aikman extracted from his almost-unrecognisable ESL-63s. I've lost count of the number visits I've made to the SME Music Room, a journey I undertake willingly because it is an education every time. Think of it the way you would constant returns to the concert hall of your choice. Dave was wondering, too, if I could arrange an introduction, so he and a Quad engineer might examine AR-A's handiwork.

So, in a way, I played matchmaker. Alastair was, as ever, a genial host, utterly forthcoming in his description of his handiwork. But he reiterated what every Quad/SME fan knows: the reason his '63s sound so incredible isn't simply the extensive modifications he devised. There's the small matter of the most robust, solid and generously-dimensioned listening room you could hope to find. And there's the other small matter of a pair of pristine Krell Reference Monoblocks, the genuine Class-A 200-watter that many still believe to be the finest solid-state amp ever produced.

Dave was taken aback by the many hundreds of kilos added to AR-A's '63s by virtue of the machine steel blocks on top. I'm sure he was mentally calculating what the shipping costs would be if Quad were to emulate even a small part of the SME treatment, incorporating only bits of it. Regardless of the impossibility of releasing even a limited run of cloned 'SME Quads', Dave left with one important realisation: he knew that the ESL-988 and ESL-989 were capable of more.

OFF TO WORK

Armed with ideas, the Quad design team got to work. They applied the tweaks to both models. The smaller uses four panels, the larger six, increasing the speaker's height and bass output. Other than that, they're virtually identical and sound different only at the (far) frequency extremes.

For readers unfamiliar with the Quads, they are full-range electrostatics. Instead of cones, they employ a very thin Mylar membrane, one-tenth the thickness of a human hair, treated with a special conductive coating. Stretched between two electrode plates, both plates have a high positive charge (+5000V), but there is a slight difference between the charge on each electrode. This difference causes the negatively-charged membrane to be more attracted to one than the other, resulting in movement of the diaphragm.

Mounted on an open frame, the diaphragm is free of any cabinet coloration. Because the diaphragm behaves

'Read my lips: the Quad ESL-2905 delivers real bass, as no full-range ESL I've ever heard has done before. And that includes some models with four times the radiating area'

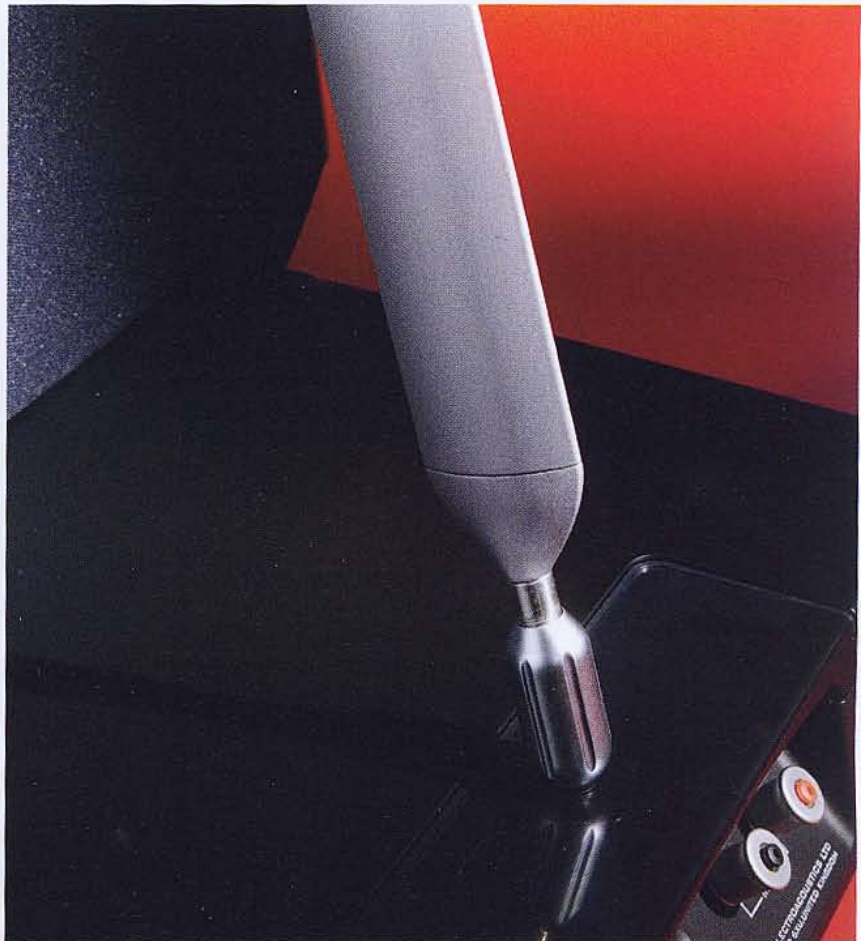
as a full-range driver, there is no need for a crossover. As Quad states, 'There are no discontinuities in the frequency response curve, so you get the full music spectrum, as it was recorded.'

Where the ESL-63, the '988/989 and now the ESL-2805/ESL-2905 differ from rival ESLs is in a neat approach that Peter Walker spent 18 years perfecting. Working from the premise, recognised by acousticians, that an ideal loudspeaker should be a point source from which sounds waves ripple like a pebble in a lake, he set out to emulate such behaviour.

He created a panel using a series of concentric anodes, instead of just two plates, allowing Quads to produce a spherical sound pressure pattern. A series of electrode rings are fed with delay lines, so each ring responds to the change in current a split second after the previous ring. This produces movement in the diaphragm identical to the 'ripple in the pond'. This is principle behind every Quad ESL since the '63.

Quad continued to refine the '63, the first major deviation being the addition of two extra panels to create the near-double height '989. As exhibited by the specifications of the ESL-2805 vs the ESL-2905 – the eventual replacements, respectively, for the less ☺

BELOW: The strut runs from top of speaker to the back of the baseplate and features tensioners to tighten the hold



'Even with vinyl, and the low-level whoosh of groove tracing, you'd be hard-pressed not to think that you were listening to a CD'

expensive, still current 988/989- the differences are few but notable:

- Impedance variation: 4-15 ohm (2805), 4-20 ohm (ESL-2905)
- Frequency Response (useable): 33Hz-23kHz (2805), 28Hz-21kHz (ESL-2905)

That's it. Everything else is the same bar weight and dimensions: 34.8kg vs 41.6kg and 1040 x 695 x 385mm (hwd) for the smaller speaker and 1430 x 695 x 385mm (hwd) for the taller, plus up to 55mm for the spikes. So, footprints are the same, but the height does make them more visually imposing. And, in black, they are rather monolithic. Take note of those specifications, though, as I will return to the differences.

STRUT YOUR STUFF

Given that Quad could neither provide every customer with an SME-like room, nor justify shipping speakers weighing 200 or 300 or more kilos, all that could be emulated were improvements to rigidity. Most visible is a full-height strut running from the top of the speaker to the back of the base plate, shaped so as not to interfere with the rearward firing sound. The strut features tensioners so you can tighten the hold, and there's a choice of substantial spikes or floor-friendly feet. Quad also supplies a pair of hefty, 8kg metal slab to fit under the plinth, as much for EU rules (no kidding – you have to ensure that a brat can't tip over your speaker) as for adding mass for sonic purposes.

But nothing beyond the diaphragm itself has been left alone. As has been cited to the point of entering urban mythology, build quality, by virtue of moving production to China, has gone up. Price, of course, has gone down, and I'm sorry for all of those who still

manufacture in the West, but it's a fact of modern life, like hell at airports and reality TV.

From the bottom up, the base, which houses the electronics, is made of steel, with piano-lacquered trim. It features a sloped rear connection panel, with mains input and speaker terminals, with a neat, see-through dustcover. Attached to this are two extruded aluminium vertical rails, which hold the speaker assembly. The drivers are locked in place by a solid-steel top-brace, also capped with trim finished in black lacquer; the sides retain their natural metal colour for contrast. Protecting the elements are black grilles, and the look is finished with the Quad logo at the base, illuminated a soft white. This can be dimmed or switched off if so desired, but I prefer knowing they're connected to the mains and ready to rock.

From cold, the Quads need mains charging for at least an hour, some would say a day. Burn-in period is harder to discuss because I don't know how many hours the review pair had before reaching me. What I can say is that after three days left on, with a CD in repeat mode, they appear to have reached optimum burn-in.

Positioning was the trickiest part. Although relatively immune to proximity to the sidewalls, and well-known to need at least 2ft behind them, the ESL-2905s are incredibly sensitive to toe-in. Quad specifies 5-20 degrees, with a minimum of 2.5m between them measured at the inner edges. The latter seemed a ☺

'Hear the glissandos of Jackie Wilson in 'Danny Boy' and you understand, the superiority of a full-range system over a musical path through a crossover'

BELOW: Above the speaker inputs is a control to allow the Quad logo at front of speaker to be dimmed





'I have to say something I never thought I'd live to utter: I have now found a panel that will allow me to 'let go' of the Apogee Scintilla. It has for me almost the pain of a divorce'

delivers real bass, as no full-range ESL I've ever heard has done before. And that includes some with four times the radiating area. I'm not just talking about boom-boom quantity. I'm referring to extension and control.

There's a tautness, a rightness to the '2905's bass that made think 'WATT Puppy' again and again. Not quite the same levels of slam, but certainly similar quality and realism. Nothing will ever plaster over the schism that divides dynamic speakers from panel-types, so the '2905 and speakers like the Wilsons are not mutually exclusive, any more than the tubes vs transistors gap will be breached. But two theoretically-perfect speakers of differing topology have to sound the same, or one is not perfect. And in the lower registers, the '2905 emulates the power of a dynamic speaker's bass with a proficiency you do not expect of a panel smaller than a barn door.

Once you can get past the notion of deep bass from a Quad – sort of like the shock of hearing something intelligent from a guest on *Big Brother* – you also have to deal with the fact that they'll go as loud as you will probably ever need. But this, and the bass, raise a question I can't yet answer: what you give up when moving to the smaller, £4500 ESL-2805. Hence my noting the specs, above. Y'see, I am never letting ☹

BELOW: Strut at rear of speaker aids rigidity and is shaped so as not to interfere with rearward firing sound

bit draconian; I used them with only 1.6m between the inner edges and it satisfied Dave Patching. Amplification? They like power, end of story, and they can take a bit of a hammering before the protection circuitry kicks in. I managed it only once, when playing Bad Company's 'Can't Get Enough' for my son. One side went silent. I lowered the volume control, and seconds later, the speaker was on again. While a 909 will drive the ESL-2905s, Quad purists might want to buy a pair of the forthcoming 909 monoblocks, which will have in excess of 200W each. Whatever else I might suggest, the McIntosh 2102 was a blissful match. Then again, ESLs and valves always seem to get along like Kate'n'Pete.

BAD ANALOGY: CHARLES AND CAMILLA

Anyway, it took all of three seconds to realise that my life was about to change. Word had already reached me that my colleague Tom Gillett, at *Stereophile* in the USA, had gone nuts about the ESL-2805, while *AudioReview* in Italy almost ran out of superlatives. Paul Seydor of *The Absolute Sound*, as righteous a Quad devotee as exists anywhere, was waxing glorious, as was Robert Greene. Little details had emerged. 'Half the distortion of the ESL-989' and 'bass that makes you wonder where the subwoofer is hidden' and 'you won't believe how loud they'll go', ad nauseum.

C'mon. I knew they weren't gonna suck from the outset because, after all, weren't they just '989s in extreme-sport clothing? Uh, no. Whatever are the undisclosed modifications, the '2905 is a lot more than an armoured '989. It's a '989 on steroids. But from a health food store.

Anyone who 'knows' what Quads sound like will be disarmed from the very moment the bass kicks in, so be warned. It is best to approach these first with something light, something acoustic, because you will be so disconcerted by the lower registers as to need a period of readjustment. Read my lips: the Quad ESL-2905



go of the new Quads. But they're a tight fit in my room. Dave Patching himself uses the smaller model in (no kidding) a converted barn. I am hoping that I won't miss the extra 5Hz down below. But that's a practical concern of mine – nothing do to with the speaker overall.

After realigning my prejudices, after finally accepting that Quad had achieved what was deemed impossible short of going to the lengths of AR-A, I sat back to hear what are simply the most translucent, open, spacious sounds ever to caress my ears. Somehow, the speaker has quieter silences, suggestive of greater dynamic range and the concomitant lower noise floor. Even with vinyl, and the low-level whoosh of groove tracing, you'd be hard-pressed not to think that you were listening to a CD. Sounds hovered against the proverbial black velvet background. You heard the recording and nothing else.

ONE PROVISIO

Quad got everything right with one proviso. It was Peter Walker who posited that every recording has a perfect playback level, when everything snaps into place. The '2905 enforces this notion with a handy mechanism: if the playback level is too low, the music appears to be coming from a space below your line of sight, and it occupies a smaller stage. Turn up the level to the correct amount, and it rises up, while filling the left-to-right plane. Too loud, and it grows a tad edgy.

This is not a criticism, and it has nothing to do with power handling or distortion. It has to do with 'rightness'. You will find yourself treating the music the way you would an image being focused by a camera with manual lens. And you will know when it's spot-on.

For me, the high point of the sessions were listening to well-recorded vocals. Keb' Mo's rich, character-laden voice hovered in front of me, every intonation crystal clear, the breathing intact and authentic. Female vocals were sweet as sugar, especially the mono recording, from a half-century-plus-ago, of the Chordettes' 'Mr. Sandman': you could hear

each voice clearly, meshing like the weave of fine silk, but still retaining its own plane. And Diane Reeves doing a tonsil joust with Lou Rawls, the contrasting textures segueing like olive oil and balsamico. But the best was hearing the glissandos of Jackie Wilson in 'Danny Boy'. You will understand, with immediate effect, the superiority of a full-range system over a musical path through a crossover.

As with the revived Quad II valve amp, there's always a sense of heresy when discussing alterations to the works of Peter Walker. But I prefer to look at it another way. Underneath the new frame, the new cosmetics, lurks a Quad ESL-63. All that the current company did was free it from the cost considerations applicable when Peter was at the helm. What we have here is a £6000 speaker that I will put up against any speaker on the planet, regardless of price. The only proviso? The '2905 will not go as loud as a pro monitor of the deafen-the-engineer variety, or big horns, *et al.*

While I will always keep dynamic speakers in my review collection – Wilson WATT Puppies and Sonus fabers do things that no ESL can – I have to say something I never thought I'd live to utter: I have now found a panel that will allow me to 'let go' of the Apogee Scintilla. It has for me almost the pain of a divorce, or the death of a friend, because that speaker remains the touchstone by which I have judged all high-end sound for two decades.

As of now, though, the Quad ESL-2905 is the most seamless, transparent, focused loudspeaker I have ever heard. It is to the original ESL what a 2006 Ferrari 599 is to a 1953 250MM: pure to the spirit, but updated in every important way. The current design team has respected *and* retained the virtues of every ESL to wear the Quad badge. But they took off the leash,

as Alastair Robertson-Aikman did 30 years ago.

With only one interlinked consideration – that of room size coupled to desired maximum playback levels – I have to say that this is the finest speaker on the planet. ☺

**FOR:
Dynamics,
bass and that
pedigree Quad
sound**

AGAINST: You'll need a room big enough to take a big sound

Hi-Fi news
Verdict

QUAD ESL-2905 £6000

Normally, I would use the entire 100 words allowed for a conclusion. This time, I only need seven: Time to give up the '57s, fellas.

SPEC/FEATURES



SOUND QUALITY



BUILD QUALITY



VALUE FOR MONEY



Hi-Fi news
OVERALL RATING **20/20**

Hi-Fi News lab report

Quad quotes a sensitivity of 86dB SPL at 1 metre for 2.83 volt input, but we could only achieve 79dB average from 200Hz to 20kHz – as much as 10dB lower than some moving-coil competitors. But the '2905 is easy to drive, as the impedance modulus and phase figures show. Frequency response flatness is not a '2905 strong point either, the ±6.6dB error from 200Hz to 20kHz of one sample being over double that recently measured for the B&W 802D. Pair matching over the same frequency range was also poor at ±5.9dB but most of the large disparities here are at high frequency: over the range 200Hz-4kHz the matching error was a much more impressive ±0.78dB. The 2905 does not even excel itself in non-linear distortion, posting THD figures that were bettered by the 802D. KH

Hi-Fi News lab specifications

SENSITIVITY (SPL AT 1m FOR 2.83V RMS)	79dB
IMPEDANCE MIN/MAX	3.84 ohm@9772Hz/ 15.5 ohm@94Hz
IMP PHASE MIN/MAX	-19.6°@4819Hz/49.4°@58Hz
RESPONSE ERROR (200HZ-20KHZ, EACH SAMPLE)	±4.9dB/ ±6.6dB
PAIR MATCHING (200HZ-20KHZ)	±5.9dB
HF EXTENSION (-6DB REF 10KHZ THIRD-OCTAVE SMOOTHED)	21.1kHz/20.6kHz THD 100Hz/1kHz/10kHz
THD 100Hz/1kHz/10kHz (FOR 90dB SPL AT 1m)	0.22%/0.25%/1.36%

Contact numbers

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UK DISTRIBUTOR: IAG UK

Review system breakdown

SOURCES SME Series 312 arm, SME 20/12 turntable, Clearaudio Goldfinger cartridge, Quad CDP99 II CD player
AMPLIFIERS Audio Research PH5 phono stage, McIntosh C200 pre-amplifier, McIntosh MC2102 power amplifier
Quad 909 power amp
CABLES Yter speaker cables and interconnects

We listened to

ART GARFUNKEL
Breakaway
Columbia 468873
2 CD

MR. BIG
Lean Into It
Atlantic 7567-82209-
2 CD
Atlantic 7567-82209-1 LP

THE TEMPTATIONS
'Papa Was A Rolling Stone'
LP

KEB' MO'
Peace...Back by Popular Demand
Okeh/Epic EK32687
CD

